

Date: Tue, 18 May 93 09:36:20 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #601
To: Info-Hams

Info-Hams Digest Tue, 18 May 93 Volume 93 : Issue 601

Today's Topics:

(none)

AMTOR question

BUY BACK 11 METERS! (was Re: Selling the Airwaves -- News from Washington
Don't get ripped off by a G5RV (3 msgs)

G5RV

Info wanted on quick charge

Kenwood-Trio TH78 hidden Options

Looking for comments on Alinco DJ580

Motorola MC80 Info. req'd

Ohio/Penn DX Bulletin #111

Recommendations wanted for SAT QSO's

What is circular polarization? (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>

Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 18 May 93 17:29:02 GMT
From: news-mail-gateway@ucsd.edu
Subject: (none)
To: info-hams@ucsd.edu

>Does anybody know of photosensitized circuit boards with positive resists?

According to Circuit Specialists in Mesa, AZ, the chemicals used in
positive resist etching are so corrosive that the EPA won't let them be
shipped by normal means, so they are extremely expensive.

>If anybody knows of photocopy shop in the San Francisco Bay Area...

Here in the Phoenix area, one can get a negative made from a positive for approximately \$20 per square foot. I design my boards, print them out on a laser printer, and take them over to Photo Design for negatives.

>--- Goh Kawai ---

Cecil...KG7BK

Date: 18 May 1993 11:07:40 GMT

From: sdd.hp.com!ux1.cso.uiuc.edu!howland.reston.ans.net!usenet.ins.cwru.edu!
magnus.acs.ohio-state.edu!wvanhorn@network.UCSD.EDU

Subject: AMTOR question

To: info-hams@ucsd.edu

>The thing that always kept me from getting onto AMTOR was that my
>transceiver took more than 20 msec. to switchover from TX to RX or
>vice versa, so I couldn't work nearby stations on AMTOR. Is PACTOR
>any better in this respect?

>

>Rick N6RK

>rkarlqu@scd.hp.com

Rick:

I have read that PACTOR is very much better in this respect, and can be used by almost all old rigs. But I cannot verify this because my only experience is with the use of a Kenwood TS-940 that provides very rapid switchover. Perhaps someone on the net, with specific knowledge, can verify this.

73, Van - W8UOF

wvanhorn@magnus.acs.ohio-state.edu

Date: 18 May 93 10:28:05 GMT

From: usc!zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!news.kei.com!ub!dsinc!
wells!edw@network.UCSD.EDU

Subject: BUY BACK 11 METERS! (was Re: Selling the Airwaves -- News from Washington

To: info-hams@ucsd.edu

Maybe the 11 meter band could be used as a new packet band! Better yet, use it as 40 channels of spread spectrum! 10-4 good buddy!

--

=====

Edward E. Wells Jr., N3IAS, President Voice: (215)-943-6061
Wells Computer Systems Corp., Box 343, Levittown, Pa. 19058
{wells.com,dsi.com,dsinc,bcccix,francis}!wells!edw

Date: 18 May 1993 14:01:31 GMT
From: usc!howland.reston.ans.net!wupost!cs.utexas.edu!tamsun.tamu.edu!
TAYLOR.TAMU.EDU!gtaylor@network.UCSD.EDU
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

measure the SWR at the antenna and at
>the open wire to coax junction. Don't be suprised if you can't get an
>accurate measurement as most SWR meters won't handle the high SWR you are
>likely to find.

And are probably for unbalanced 50 ohm circuits...Greg
Greg Taylor, KD4HZ // g-taylor4@tamu.edu // 409-845-4445 // Fax-847-8744

Date: Tue, 18 May 1993 17:54:28 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

gtaylor@taex003n.tamu.edu (Gregory S. Taylor) writes:

> measure the SWR at the antenna and at
>>the open wire to coax junction. Don't be suprised if you can't get an
>>accurate measurement as most SWR meters won't handle the high SWR you are
>>likely to find.

>
>And are probably for unbalanced 50 ohm circuits...Greg

True, although a balun could be used.

As a follow up I checked out Walter Maxwell's "Reflections" and he describes the G5RV antenna in some detail. His conclusion is similar, that the high SWR into lossy coax gives the impression of a good match when in fact no such match exists. He recommends using open wire line and a tuner and treating the antenna as a random wire.

Either the theory or the evidence is wrong. If you believe that the

experience is correct, please provide conclusive measured repeatable results that refute the theory, and explain those results. Anecdotal performance reports about working the world is hardly evidence that something works as advertised. Particularly when transmission line theory and propagation theory would predict that working the world is possible with the G5RV antenna under good propagation conditions. But don't suggest that the antenna is a good performer simply because of a 59 report from a DX station.

73,
Todd
N9MWB

Date: Tue, 18 May 1993 14:01:08 GMT
From: swrinde!emory!europa.eng.gtefsd.com!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

In article <1993May17.214122.22853@nntpd2.cxo.dec.com> little@nuts2u.enet.dec.com (nuts2u::little) writes:

>
>The SWR as measured at the transmitter will be less than 3:1 *because* of
>the resistive losses in the coax. So although the SWR seems reasonable,
>it's only because you are heating the coax feed line.

Let's look at this a little more carefully. At 14 MHz, RG-58 has a loss of 1.7 db per 100 feet, so the coax on the G5RV will have a loss of about 0.8 db. (Roughly 60 feet of coax and 38 feet of open wire line) According to the VSWR chart in the Handbook (pg 16-15), to wind up with less than 3:1 VSWR at the transmitter, the antenna VSWR must be less than 3.8:1 for a cable of this loss. To get less than 3:1 at the transmitter with an antenna VSWR of 100:1, it would require a cable with 4 db of loss, or 6.6 db per 100 foot. Even RG-174 is better than that at 14 MHz.

Coax cable loss is generally low enough at HF that VSWR losses aren't significant. A VSWR of 3:1 only gives an additional 0.4 db of loss for RG-58 over it's nominal 0.7 db per 50 foot matched case loss. A VSWR of 20 only gives an additional loss of 3.8 db. That's noticable, but since most people use far more power than is required at HF, it's probably not significant. If you start with RG-8, 0.3 db for 50 feet at 14 MHz, then even a 20:1 VSWR only gives an additional loss of 2.5 db, and a 3:1 VSWR only results in an additional loss of 0.23 db. That's nothing to be concerned about.

Gary
--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 18 May 93 17:23:03 GMT
From: news-mail-gateway@ucsd.edu
Subject: G5RV
To: info-hams@ucsd.edu

>The G5RV is not a multiband antenna. Using MININEC, I modeled this antenna
>and the SWR is much too high to be using coax feed. The SWR varied between
>50:1 to 100:1 on all the other bands!
>Ed W1AAZ

Ed, Bill Orr, W6SAI, disagrees with you. Take a look at his actual SWR measurements in his article in CQ magazine, Nov. '92. The SWRs are not at all bad on half of the bands. In my opinion, the reason for some bad G5RV reports is that few people seem to realize that, unlike the dipole, the G5RV has almost no broad-side radiation above 20M. The 4 nodes are at 2, 4, 8, & 10 o'clock and I had no luck at all with my G5RV until I oriented it correctly...then it covered the world...Cecil...KG7BK

Date: 18 May 93 00:17:24 GMT
From: news-mail-gateway@ucsd.edu
Subject: Info wanted on quick charge
To: info-hams@ucsd.edu

	Subject:	Time:8:14 AM
OFFICE MEMO	Info wanted on quick chargers	Date:5/18/93

I am planning on getting a quick charger of some sort for my DJ580. I would appreciate any comments, info, etc. on either the Alinco quick charger or any of the third party units. Thanks.
73,
Bruce Fingerhood
KA7I
brucef@ee.cornell.edu

Date: Tue, 18 May 1993 12:31:12 GMT
From: pa.dec.com!e2big.mko.dec.com!uvo.dec.com!forsan.enet.dec.com!
frenchs@decwrl.dec.com
Subject: Kenwood-Trio TH78 hidden Options

To: info-hams@ucsd.edu

Hi,

I have seen and have a copy of the secret functions manual for the TH78 I have the various xmit/rcv options enabled etc. Are there any other functions that have come to light. I heard there is a DEMO function (not the game) that needs something like five buttons pressed and power up to enable.

By the way, what is you game high score? I am up to 8.

Simon - G6ZTZ

Date: Tue, 18 May 1993 12:09:54 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!
usenet.ufl.edu!tulane!ukma!rsg1.er.usgs.gov!resdgs1.er.usgs.gov!
tbodoh@network.UCSD.EDU
Subject: Looking for comments on Alinco DJ580
To: info-hams@ucsd.edu

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Hello,

I'm going for my ticket on Saturday and am looking at the Alinco DJ-580T. I have several questions and am hoping that someone can offer some firsthand answers;

- o I've sold my scanner, hoping that the HT that I buy can take it's place - for scanning VHF-HI, AIR, UHF and 800 Mhz. As rated, the 580 receives 130-174 Mhz and 420-480 Mhz. Alinco sent me the air band mod - but I've seen references in ads to 800 Mhz coverage. How is that added? How good is reception in the extended coverage frequencies - as far as imaging, etc?
- o Alinco sent me a note that states "...BUT THE FCC DOES NOT ALLOW US TO GIVE OUT MODIFICATION INFO ON EXTENDED TX AND RX WITHOUT VERIFICATION OF M.A.R.S OR C.A.P.S LICENSE.". While (like most hams) I have no plans on transmitting in these frequencies it would be beneficial in an emergency. I can understand why the FCC wouldn't want them to give out the secret, but why does Alinco go along with the request - is it a requirement written into their certification for the 580? And do they really mean that the FCC tells them not to give out extended RECEIVE mods - or does the same mod open up TX and RX?

- o Alinco also states in their letter that transmitting in the extended ranges may fry the rig. How likely is this? I don't plan on using it in those ranges, but it would be nice to know - also can you set a memory channel up so that you can receive but not transmit?
- o How do you like the radio overall?
- o Is this HT severe overkill for a newcomer (with 25 years of radio, electronics and computer experience) or only moderate overkill? ;)
- o Have there been any reviews of this radio either in the magazines or on the net?

I have looked at the ICOM SRA HT, but it's too pricey for me and at that price should include dual band. Thanks in advance for any help you can offer a (relative) newcomer...

```

+++++
+ Tom Bodoh - Sr. systems software engineer
+
+ USGS/EROS Data Center, Sioux Falls, SD, USA 57198      (605) 594-6830      +
+ Internet; bodoh@dggs.cr.usgs.gov (152.61.192.66)
+
+ "Welcome back my friends to the show that never ends!" EL&P
+
+++++

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Date: Tue, 18 May 1993 13:10:27 GMT
 From: pipex!uknet!icsbelf!johna@uunet.uu.net
 Subject: Motorola MC80 Info. req'd
 To: info-hams@ucsd.edu

Hi all,

I have a Motorola MC80 High Band 10 ch. FM mobile, which I want to convert for use on the 2m amateur band. When it was used commercially, the radio operated at about 150Mhz. Does anyone have details of how to go about tuning this radio to 2m ? Can it be tuned to 2m ? Does it need to be modified to operate on 2m ?

Any information at all will be gratefully received.

Thanks in advance.

--

John Agnew, | johna@icsbelf.co.uk
ICS Computing Group Ltd, | ...!uknet!icsbelf!johna
Belfast (Northern Ireland) | Gi6IRL@GB7TED.GBR.EU [44.131.15.11]

Date: Mon, 17 May 1993 16:42:47 MDT
From: gumby!destroyer!cs.ubc.ca!alberta!adec23!ve6mgs!usenet@yale.arpa
Subject: Ohio/Penn DX Bulletin #111
To: info-hams@ucsd.edu

SB DX @ ALLBBS \$OPDX.111
Ohio/Penn DX Bulletin No. 111

The Ohio/Penn Dx PacketCluster
DX Bulletin No. 111
BID: \$OPDX.111
May 17, 1993
Editor Tedd Mirgliotta, KB8NW
Provided by BARF-80 BBS Cleveland, Ohio
Online at 216-237-8208 14400/9600/2400/1200/300 8/N/1

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn PacketCluster Network, DF4RD, HB9BLZ, AD1C, and N8HTT for the following DX information.

9M0S, SPRATLY ISLANDS. The latest on the 9M0S DXpedition is that OH2BH and crew plan to depart from Malaysia by boat, May 26th. The operation will begin sometime after that date. Meanwhile, there have been reports of Marrti, OH2BH, from Aruba signing P4/AH3D. He is attending the Yaesu DX-Caribe Cruise, so expect to see him and others active from other Caribbean islands.

C5, The GAMBIA. Falk, DL7UTA (a new NODXA member), and Roy, DL7UBA, will be active from here, June 14-31. They will be signing C56/DL7UTA and C56/DL7UBA, and be active on 160-10 meters, CW/SSB. QSLs for C56/DL7UTA go to: Falk Weinhold, P.O. Box 43, 0-1130, Berlin. QSLs for C56/DL7UBA go to: Roy Hengst, Deulstr. 28, 0-1160, Berlin.

EJ, GREAT SALTEE ISLAND (IOTA EU-103). Operators HB9ASZ, HB9AUZ, HB9BFA, HB9DEN and HB9DKO will be active as EJ3GS, from June 3-10. Look for them to be active on CW, SSB, RTTY and on request, PACTOR. QSL via HB9ASZ.

EJ, GREAT BLASKET ISLAND (IOTA EU-107). The Island Hoppers DX Group will be active from here July 23-26. The call sign will be EJ3HA and activity will be on all bands, SSB and CW. The group plans to be active in the IOTA contest. QSLs will be handled by Declan, EI6FR.

OH0, ALAND ISLAND. This island has attracted many operators lately. Be looking for activity from Leif Lindgren signing SM0FWW/OH0. He will be there May 20-24 and plans to concentrate on 20, 40 and 80 meters. All QSLs will go to WA4JTK. Also, be looking for Heinz, DL9FAZ, on SSB from June 1-12.

OPPS DEPARTMENT! In last week's bulletin we mentioned that Andy, HB9EAS would be active from the city of Triesenberg, Liechtenstein, as HB0/HB9EAS, May 14-16. We interpreted Andy's call sign wrong from the information received. Andy's call sign was to be HB0/DL8GCL. The call sign of HB9EAS is a PBBS where the information came from. Thanks to Maurice, HB9BLZ, for bringing it to our attention.

HB0, LIECHTENSTEIN. If you missed the activity by Andy, DL8GCL, signing HB0/DL8GCL over the weekend, you will have a second chance to work another group. Remember, the Wiesbaden Amateur Radio Club (DA1WA) will be active as HB0/DA1WA from May 28th thru June 6th. Refer to OPDX.107 for more details.

OZ/DL1AZZ/P, MANDOE ISLAND (IOTA EU-125). Siggi, DL1AZZ will be active from May 22-29. Activity will be on 10-40 meters.

ST0, SOUTHERN SUDAN. John, PA3CXC, continues to be active on some of the WARC bands. This past weekend he was heard on 30 and 17 meters. Check 10102 kHz around 0400 and 1945z or 18073 kHz around 1845z.

T9, BOSNIA-HERCEGOVINA. Many are still unaware about the new prefix change. The following were active this week: T91A (QSL via DJ0QJ), T91ENS, T93M (QSL via DL80BC), T93T (QSL via 9A2AJ), T94DD, T94IW, T94K (QSL via YU4EKK) and T95X (QSL via YU4XX).

TM6SM, SAINT MARCOUF ISLAND (IOTA EU-081). French operators FE10GG, FE10NF, F6DGT, F9LF and FC1SKJ will be active May 19-24. Activity will be on CW (30 kHz from band edge) and SSB (3760, 7060, 14260, 21260 and 28460). QSL via F6DGT.

YI, IRAQ. A few new operators have been showing up lately. Look for DIYA, YI1DZ, to show on 14247 kHz between 0130 to 0330z. Also look for YI10MR to be active on CW. Check 14013 kHz around 0415z and 21013 kHz around 21013 kHz.

ZS9, WALVIS BAY. ZS9A was active again this past weekend, first on 21352 kHz at 1415z and then moved to RTTY on 21086 kHz around 1600z.

FAX YOUR DX INFORMATION NOW! Faxing is available Monday/Wednesday/Friday from 0430 to 2330z only. The number is 216-237-8208 and operates Group 3 FAX Service Class 2 (EIA/TIA 592) only. Use only the dates and times specified. FAX Service Class 1 (EIA/TIA 578) is available upon request by

leaving a message to the Sysop on BARF-80 BBS. The FAX card is sharing the same phone line as BARF-80 BBS using a data/fax/phone switch.

Excerpts and distribution of The OPDX Bulletin are granted as long as OPDX/BARF80 receive credit. To contribute DX info, call BARF-80 BBS online at 216-237-8208 14400/9600/2400/1200/300 and leave a message with the Sysop or send InterNet Mail to: aq474@cleveland.freenet.edu or send BitNet Mail to: aq474@cleveland.freenet@cunyvms or send PRODIGY Mail to: DFJH48A or send a message via packet to KB8NW @ WA8BXN.OH.USA.NA

/EXIT

Date: 18 May 93 11:22:29
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net
Subject: Recommendations wanted for SAT QSO's
To: info-hams@ucsd.edu

I second Gary's recommendation. I think for a club that really needs an all in one package, along with computer control, the FT-736R is a really good buy.

Bob

--

Robert W. McGwier | n4hy@ccr-p.ida.org
Center for Communications Research | Interests: amateur radio, astronomy, golf
Princeton, N.J. 08520 | Asst Scoutmaster Troop 5700, Hightstown

Date: Tue, 18 May 1993 13:15:16 GMT
From: rit!isc-newsserver!ultb!cep4478@cs.rochester.edu
Subject: What is circular polarization?
To: info-hams@ucsd.edu

In article <XVXm4B1w164w@jwt.oau.org> bbs-ksj@jwt.oau.org writes:

>FM broadcast stations transmit circularly polarized signals, usually.

What is an example of an omni-directional, circularly polarized antenna? Maybe two antennas, a vertical and a halo, somehow phased? Wouldn't it change from right-hand to left-hand, depending on from which side you were looking at the antenna?

Chris

--

Christopher E. Piggott, WZ2B
President
Rochester Institute of Technology
Amateur Radio Club K2GXT

cep4478@ulb.rit.edu
wz2b.ampr [44.69.0.1]
wz2b @ WB2PSI.#WNY.NY.USA.NA
CEP4478@RITVAXA.BITNET

Date: Tue, 18 May 1993 17:54:40 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: What is circular polarization?
To: info-hams@ucsd.edu

cep4478@ulb.rit.edu (C.E. Piggott) writes:

>What is an example of an omni-directional, circularly polarized antenna?
>Maybe two antennas, a vertical and a halo, somehow phased? Wouldn't it
>change from right-hand to left-hand, depending on from which side you were
>looking at the antenna?

Don't know what a vertical and a halo would give you, but there are several omni-directional circularly polarized antennas. The most common ones in amateur use are crossed dipoles fed 90 degrees out of phase, the quadrifilar helix (not the axial mode helix that looks like a spring), and the turnstile. They all produce circularly polarized nearly omni-directional signals. (Actually they mostly produce cardioid patterns which will give omni-directional coverage if aimed towards the sky.)

The question I have is how do TV stations produce horizontal polarization when their antennas look like verticals?

73,
Todd
N9MWB

Date: Tue, 18 May 1993 12:17:44 GMT
From: pa.dec.com!e2big.mko.dec.com!peavax.mlo.dec.com!psdvax.enet.dec.com!
hitz@decwrl.dec.com
To: info-hams@ucsd.edu

References <1svucr\$spl@charm.magnus.acs.ohio-state.edu>,
<1t8u11\$h8n@hpscit.sc.hp.com>, <1tag1s\$6o3@charm.magnus.acs.ohio-state.edu>
Reply-To : hitz@psdvax.enet.dec.com ()
Subject : Re: AMTOR question

The timing budget for PacTOR allows a generous 170 msec for
switchover and settling time.

The total cycle time is 1.25 secs.

The packet duration is 0.96 secs.

The slot for control signal duration is .29 secs

The control signal duration is .12 secs.

George, W1DA

hitz@psdvax.enet.dec.com
74670.1532

Date: Tue, 18 May 1993 13:24:02 GMT
From: rit!isc-newsserver!ultb!cep4478@cs.rochester.edu
To: info-hams@ucsd.edu

References <C6u3Iz.1uv@ucdavis.edu>, <nagleC6uH5F.JMt@netcom.com>,
<nagleC722KJ.B7A@netcom.com>ver
Subject : Re: Experience with Ramsey kits?

In article <nagleC722KJ.B7A@netcom.com> nagle@netcom.com (John Nagle) writes:

>... But I like to build stuff. Also, I plan to
>use it on packet, maybe 9600baud. And digging into an HT to try to
>get at the discriminator and modulator is not my idea of fun hobby stuff!

Getting this radio to work 9600 may still not be your idea of a fun time.
The receiver bandwidth will probably have to be opened up to support the
G3RUH-style FSK modems, and to get flat audio down to DC. (Many people
believe that you don't -really- need flat audio down to DC, since there
is a scrambler randomizing the data - but try using an RC to intentionally
distort very-low-frequency audio on a direct FSK modem, and you see a
small but definite bit-error trend).

We did get one of these radios working with a paccom 9600 modem, as part
of a NEDA (north east digital association) link. It took quite a few
hours with some expensive signal analyzers to get it to be reliable. I
suggest pressing the manufacturer of these kits for an "official" mods
list, since the radios already claim to work at 9600-baud.

Standard disclaimer: I have met John Ramsey and his gang ... they are a
great bunch of guys. But I am affiliated with them in no way.

Chris

--

Christopher E. Piggott, WZ2B
President
Rochester Institute of Technology
Amateur Radio Club K2GXT

cep4478@ultrb.isc.rit.edu
wz2b.ampr [44.69.0.1]
wz2b @ WB2PSI.#WNY.NY.USA.NA
CEP4478@RITVAXA.BITNET

End of Info-Hams Digest V93 #601
